Discussion Paper

State and Federal Rule Differences

Publication #96-401 (Revised September 2002)

List of Topics

In June 1993, the Department of Ecology wrote the first discussion paper on the differences between the Washington State and Federal RCRA hazardous waste rules. This is the second revision, and it includes changes through the June 2000 amendments to the state *Dangerous Waste Regulations*.

This paper is not totally comprehensive in that it does not describe every regulatory difference between the state dangerous waste program and the federal hazardous waste program. This paper will be revised periodically to reflect changes or to include additional differences between the programs. Refer to the *Dangerous Waste Regulations*, chapter 173-303 WAC for more detail.

WASHINGTON STATE DEPARTMENT OF ECOLOGY

Federal

The U.S. Environmental Protection Agency (EPA) regulates wastes on the basis of properties that are exhibited by the waste. Consistent with this, EPA uses both characteristics and lists to define the universe of hazardous wastes. Any waste exhibiting one of four characteristics is deemed to be hazardous; the characteristics include: ignitability, corrosivity, reactivity, and toxicity (leaching procedure). EPA then developed lists of wastes based on a combination of the following criteria:

1) The waste exhibited one of the characteristics;

2) a) The waste was found to be fatal to humans in low doses. In the absence of human toxicity data, EPA used the following criteria to assess the toxicity of wastes:

- an oral LD_{50} (rat) less than 50 mg/kg,
- an inhalation LC50 (rat) less than 2 mg/1, or
- a dermal LD50 (rabbit) less than 200 mg/kg or,

b) the waste has been found to otherwise cause or contribute to serious irreversible or incapacitating illness. Such wastes are called acutely hazardous waste, and are subject to regulation at smaller quantities than other hazardous waste. (The state followed EPA's intent to regulate the more hazardous wastes at smaller quantities through the system of Extremely Hazardous Waste (EHW);

3) The waste contains one or more of approximately 400 hazardous constituents listed in Appendix VIII of Part 261. Many of these constituents have been shown to cause cancer, genetic mutation, or embryonic damage in humans or other animals.

Using these three criteria, EPA produced four lists of hazardous wastes. Two lists (non-Specific Sources, and Specific Sources) are based primarily on the third criterion above. A third ("P") and fourth ("U") list (Discarded Chemical Products) are based on all three criteria.

State

Ecology also regulates wastes on the basis of properties that are exhibited by the waste. The State's definition of dangerous waste includes EPA's lists and characteristics, plus:

1) The characteristic of solid corrosivity;
2) State listed wastes- W001(certain PCB wastes); and
3) Two state criteria- toxicity and persistence.

One state criteria, acute toxicity, is the same criteria that EPA used as a basis for producing lists. Because EPA does not publish the criteria in rule that was used to list wastes, waste mixtures that exhibit the criteria, but are not listed, are not federally regulated **even though the waste poses the same risks as listed wastes**. The state system catches all toxic wastes that the federal system intended to regulate based on their criteria for listing, but did not specifically list.

The state statute, Chapter 70.105 RCW Hazardous Waste Management, mandates that Ecology use the designation Extremely Hazardous for wastes that are persistent and pose significant hazard because they are either highly toxic or bioaccumulate in living organisms through the food chain. In response to this, Ecology developed a method for determining which wastes are "highly toxic" by the acute toxicity criteria and designate those as "extremely hazardous."

Ecology also regulates two classes of organic compounds under the Persistence Criteria, halogenated organic compounds (HOC) and polycyclic aromatic hydrocarbons (PAH), as bioaccumulative. The EPA basis for regulating wastes included genetic mutation and embryonic damage as criteria for producing their lists. While Washington's Hazardous Waste Management Act (chapter 70.105 RCW) specifically defines dangerous waste to include mutagenic and teratogenic wastes, Ecology has yet to write rules to regulate wastes on the basis of these specific properties. However, wastes that exhibit these properties are captured under both the federal lists and characteristics, and the state criteria of toxicity and persistence.

Federal

EPA categorizes wastes as hazardous waste or as acute hazardous waste. Hazardous waste is the term used by EPA to identify those solid wastes with properties that could pose dangers to human health and the environment. Acute hazardous wastes include certain listed wastes and discarded chemical products that are very dangerous and strictly regulated in quantities of more than 2.2 pounds.

State

The state categorizes wastes as dangerous waste (DW) or as extremely hazardous waste (EHW). The state term DW includes all wastes the federal term "hazardous waste" encompasses, plus the Washington state-only wastes, such as the criteria wastes; it does not include wastes that are EHW. Extremely hazardous wastes (EHW) are those dangerous wastes that are especially dangerous to the environment and require greater control. The term "dangerous waste" refers to the full universe of wastes regulated under both state and federal statutes. Wastes that designate under the state criteria may be designated as either DW or EHW depending on the concentration of the waste.

Excluded Categories of Waste

Both the state *Dangerous Waste Regulations* and the federal RCRA regulations provide exclusions for 1) specific materials as solid waste, and 2) specific solid wastes from being a hazardous waste. These categories of waste are excluded because they are generally not dangerous waste, they are recycled or disposed of in ways that do not threaten public health or the environment, or they are regulated under another environmental law or under another program.

In general, the state dangerous waste exclusions (WAC 173-303-071) are considerably more stringent (exclude less wastes) than the federal exclusions (40 CFR 261.4) and, therefore, bring more waste (both by volume and type) under regulation.

Waste Categories, (continued)

Wastes excluded pursuant to WAC 173-303-071 remain subject to the requirements of cleanup (050), spills (145), and special powers/authorities (960). A comparison of state and federal exclusions follows.

1. Federal Exclusions Only

There are significant federal exclusions not recognized by the *Dangerous Waste Regulations.* As a result, more wastes are captured by the state rules as dangerous waste. Several federal exclusions are not found specifically as "excluded" wastes at WAC 173-303-071, but are found elsewhere in the *Dangerous Waste Regulations.* Federal exclusions not recognized by the *Dangerous Waste Regulations* include:

- Fly ash/bottom ash/slag waste/flue gas from combustion of coal and fossil fuels;
- wastes produced from certain ore extraction/exploration procedures (drilling fluids, waters, other wastes);
- certain mining extraction/beneficiation/processing "Bevill" exclusion wastes;
- Mineral processing secondary materials;
- cement kiln dust waste;
- the injected groundwater exclusion;
- certain used oil filters;
- the deminimus wastewater exclusion, and
- source special nuclear and by-product material as defined by the Atomic Energy Act (AEA).

2. State/Federal Exclusions that are the Same:

These exclusions are either the same, or they are state exclusions that have been tailored to be consistent with the federal RCRA exclusions and to prevent dual regulation, for the most part, of a waste stream. They include:

- industrial wastewater discharges;
- waste wood and wood products failing only for arsenic (the federal exclusion includes hexavalent chrome in its exclusion);
- irrigation return flows

- mining overburden;
- lab samples;
- dangerous waste generated in product or raw material tanks; petroleum contaminated media and debris;
- spent wood preserving solutions that have been reclaimed;
- nonwastewater splash condenser dross residue;
- used oil re-refining distillation bottoms;
- specific waste that fails the toxicity characteristic only for trivalent chromium;
- nonwastewater residues such as slag that result from high temperatures metals recovery processing of K061, K062, or F006;
- pulping liquors (section -017) if reclaimed;
- spent sulfuric acid used to produce virgin sulfuric acid (section -017);
- oil-bearing hazardous secondary materials that are inserted into the petroleum refining process
- excluded scrap metal;
- shredded circuit boards;
- petrochemical recovered oil;
- spent caustic solutions from petroleum refining;
- catalyst inert support media;
- leachate or gas condensate;
- dredged material;
- condensates from overhead gases from Kraft mill stream strippers.

3. State/Federal Exclusions that are Similar:

There are numerous exclusions that are similar, yet have been tailored to address Ecology's concerns. The state's version of excluded waste in this category is more stringent than the federal counterpart in that more wastes are subject to regulation. As a result, federally excluded wastes are regulated more stringently by the state *Dangerous Waste Regulations*. They include:

- the domestic sewage exclusion;
- household waste;
- agricultural crops and animal manures;
- waste pickle liquor sludge;
- "closed loop" exclusion;

- coke and coal tar used as fuels (the more stringent state version is found at WAC 173-303-120);
- used oil filters that are recycled as used oil and scrap metal;
- CFC refrigerants (the state conditional exemption for spent CFC refrigerants is at WAC 173-303-506);
- treatability study samples, and
- samples undergoing treatability studies at lab and testing facilities.
- PCB waste regulated under the Toxic Substances Control Act (TSCA).

4. State Exclusions Only (Wastes not Federally Regulated)

The following exclusions are state-only because either 1) the RCRA program does not recognize the waste as a hazardous waste and regulates the waste under a different Act (i.e., PCB and asbestos under TSCA), or 2) the waste generally is not a federal hazardous waste because it usually does not fail a designation. State exclusions include:

- asphaltic materials;
- roofing tars and shingles;
- PCBs in the form of W001;
- special incinerator ash, and
- state-only wastes that are recycled provided the recycling facility meets standards defined in rule and generators ship it in a timely manner.

Domestic Sewage Exclusion (DSE)

Federal

Federal regulation provides a broad exclusion from the definition of a "solid waste" pursuant to 40 CFR 261.4. It excludes an entire waste stream, including mixtures of domestic sewage and "other wastes..." with no conditions or caveats. "Domestic sewage; and any mixture of domestic sewage and other wastes that passes through a sewer system to a publicly-owned treatment works for treatment. Domestic sewage means untreated sanitary wastes that pass through a sewer system."

State

The state rule excludes domestic sewage and any mixture of domestic sewage and other wastes that passes through a sewer system to a publicly owned treatment works (POTW) provided the generator or owner/ operator has obtained a state waste discharge permit, or pretreatment permit from a sewage utility delegated pretreatment program.

The waste discharge must be specifically authorized in the permit, the waste discharge must not be prohibited under 40 CFR 403.5, and the waste prior to mixing with domestic sewage must not exhibit dangerous waste characteristics or criteria unless it is treatable in the POTW where it will be received.

"Domestic sewage" means untreated sanitary wastes that pass through a sewer system to a publicly owned treatment works (POTW) for treatment. This exclusion does not apply to the generation, treatment, storage, recycling, or other management of dangerous wastes prior to discharge into the sanitary sewage system."

Universal Waste

Federal

Under the federal rule, batteries, mercury-containing thermostats, pesticides, and lamps are considered universal waste. EPA is working on a new category of universal waste- cathode ray tubes (CRT), expected to be proposed early 2001.

State

The state rule includes batteries, mercury-containing thermostats, and lamps as universal waste. Pesticides are not universal wastes under the state rule. The state also has a lower accumulation limit for lamps than for other categories of universal waste. The State limits lamp accumulation for a small quantity handler to 2,200 pounds.

Used Oil

The state incorporated the federal used oil rules by reference in June, 2000. There are several differences between the state and federal rules.

Mixing dangerous waste with used oil. The federal rule prohibits the mixing of listed waste with used oil, but allows certain mixing of characteristic waste and conditionally exempt small quantity generator waste (CESQG) with used oil. Ecology did not adopt 40 CFR 279.10(b)(2) and (3), which allow mixing of characteristic waste and CESQG waste with used oil. Intentional mixing of other materials into used oil, or used oil into other material is not allowed, therefore they cannot be managed as used oil.

Metal working fluids with chlorinated paraffins. When the state proposed its used oil rule, it clarified that metal working fluids formulated with chlorinated compounds (commonly referred to as chlorinated paraffins or chlorinated alkene polymers) cannot be managed as used oil if burned for energy recovery. If the metal working fluids are reclaimed or re-refined, they may be managed as used oil. The concern with burning chlorinated metal working fluids is the potential for dioxin formation if burned in an inappropriate combustion unit.

Standards for used oil generators. In addition to the standards for generators in 40 CFR Part 279 Subpart C, generators must ensure that containers are closed at all times except when adding and removing materials. The containers must be managed and handled in such a manner as to avoid leaks and ruptures. Another difference between the state and federal regulations is that the state allows generators to transport their own oil in quantities greater than 55 gallons in their own vehicle without a transporter ID number. The oil must be taken to a collection center that meets the requirements of a transfer facility, and that records the name, address, telephone number, date of delivery, and quantity of used oil being delivered to the site.

Standards for used oil collection centers and aggregation points. In addition to the requirements for collection centers and aggregation points in 40 CFR Part 279 Subpart D, the state rule allows that collection centers may receive quantities of oil greater than 55 gallons from a generator if the center meets the requirements of a transfer facility. The collection center must record the generator's name, address, telephone number, date of delivery, and quantity of used oil delivered.

Standards for used oil transporters and transfer facilities. In addition to the requirements in Part 279 Subpart D, the state rule has a provision for "additional reports". This contingency provision allows dangerous waste inspectors a means to ensure the integrity of containers and tanks at transfer facilities and processors and re-refiners. If an inspector determines that a container or tank poses a threat to human health or the environment, they can require an assessment of the integrity of the tank or container by a professional engineer. This determination may also be used to require that the tank or container not be used until repairs are made.

Standards for used oil processors and re-refiners. In addition to the requirements in Part 270 Subpart F, the state rule limits processors and re-refiners to a 90-day limit in which used oil and oily water waste must be entered into an active recycling process. This addition was intended to preclude the practice of extended storage of "problem" oily wastes- wastes that may become a threat to the surrounding area due to neglect and mismanagement. "Additional reports", as describe above for transfer facilities, is required of processors and re-refiners as well.

Military Munitions Rule

The state rule differs from the federal rule in the following ways:

a) Ecology's rule does not include an exemption from manifesting for military munitions that are transported between military installations. The federal exemption from manifesting applies to both military and commercial transporters of military munitions.

b) The second federal exclusion from manifesting that allows transport along a public right of way within or along the border of contiguous property, was modified in the state rule to allow a facility to use an alternative tracking mechanism that serves the purpose of the manifest provided Ecology has approved its use. This way, documentation will continue to be required for all shipments of hazardous waste, yet large facilities such as military installations and universities will be able to use existing documentation that also accompanies these shipments.

c) A provision proposed by EPA, but not included in its final rule was added to the State rule. This provision states that munitions left on a closed or transferred range meet the definition of solid waste. By including this provision, the state clarified its authority to require that these wastes be cleaned up under its corrective action program(s).

State

"Special waste" is defined as any state-only dangerous waste that is solid only (nonliquid, nonaqueous, nongaseous), that is:

- Corrosive waste,
- Toxic waste that has a Category D toxicity,
- W001 listed PCB waste, or
- Persistent waste that is not EHW.

Any solid waste that is regulated by the US EPA as hazardous waste cannot be a special waste. Special wastes, "pose less risk to public health and the environment than do other dangerous wastes, therefore they do not require as high a level of regulation."

It was determined that special wastes can be safely managed with a level of protection that is intermediate between dangerous and nondangerous solid wastes. Therefore, a conditional exclusion was adopted in 1995 for special wastes.

Special waste may be legitimately recycled, sent off-site for treatment, treated on-site consistent with the treatment by generator standards at WAC 173-303-170(3)(c), or disposed in solid waste landfills permitted in accordance with Chapter 173-351 WAC. WAC 173-303-073 contains more information on appropriate types of permitted landfill units and additional on-site management requirements.

Certificate of Designation

State

The state dangerous waste rules include a provision at WAC 173-303-075 whereby Ecology may "certify" that a particular generator's waste does not designate as dangerous waste or does designate as dangerous waste for specific reasons. Ecology initially offered this service when the regulations were new, and generators' comfort level with the designation procedure was not very high; also, there was concern regarding their liability as a result of incorrectly designating the waste. This option offers generators a high level of comfort that they have correctly designated their waste.

After the generator tests his or her waste, and determines either that the waste is dangerous or is not dangerous, an application for certification may be submitted to Ecology. After reviewing the application, if Ecology concurs that the generator has performed all of the appropriate tests, and the test results are valid, Ecology may issue a Certificate of Designation for the waste. The certificate is essentially Ecology's concurrence that the generator has properly designated the waste.

Less than 220 pounds

The federal and state regulations use different terminology for identifying generator status. At the federal level, generators of less than 220 pounds are called "conditionally exempt small quantity generators", the state calls them "small quantity generators" (SQG). Those who generate less than 220 pounds per month may store/accumulate up to 2,200 pounds of non-acute hazardous waste.

220 - 2200 pounds

Under the federal regulations, generators of between 220-2200 pounds (per month) of waste are identified as "small quantity generators" (SQGs), whereas in the state regulations they are referred to as "generators of 220-2200 pounds" (sometimes referred to as medium quantity generators (MQGs)). Federal SQGs may store/accumulate up to 13,200 pounds of non-acute hazardous waste while state MQGs are limited to 2,200 pounds. As a result of the lower accumulation limit, the state *Dangerous Waste Regulations* have the potential of regulating more generators at a higher generator "status" than under federal regulations.

Accumulation

Generators of between 220 and 2200 pounds per month may accumulate dangerous waste on-site without a permit for 180 days. Generators of 2200 pounds per month or more are allowed to accumulate dangerous waste on-site without a permit for 90 days, provided the requirements for accumulating waste on site are met; e.g., all such waste is shipped off-site to a designated facility or placed in an on-site permitted facility within the accumulation time, the generator complies with tank and container standards, containers and tanks are labeled clearly, the accumulation date is marked and clearly visible, and other requirements as necessary. Differences between WAC 173-303-200, Accumulating Dangerous Waste On-Site and WAC 173-303-201, Special Accumulation Standards (for generators of between 220 and 2200 pounds) and the comparable federal rule at 40 CFR 262.34, Accumulation Time are:

1. When wastes must be transported over a distance of 200 miles or more, Ecology requires a case-by-case review of generator requests for an extension of the 180 day accumulation period (for generators of 220-2200 pounds per month); the federal regulations do not require such a review.

2. Under federal rules, a generator (220-2200 pounds per month) may accumulate up to 13,200 pounds of waste on-site and comply with reduced requirements; whereas, the *Dangerous Waste Regulations* allow only up to 2200 pounds on-site before additional requirements apply.

Treatment by Generator

State

The state allows generators to treat their own waste in containers and tanks in accordance with WAC 173-303-170(3). Technical Information Memorandum (TIM) #96-412, *Treatment by Generator,* describes how treatment by generator may be accomplished for many wastes and treatment methods without prior approval from Ecology.

Federal

With US EPA, a categorical exemption exists for generators who treat their own waste for treatment methods that do not incorporate direct flame combustion or heat to drive off hazardous constituents.

Land Disposal Restrictions

Federal

One of the major impacts of the Hazardous and Solid Waste Amendments (HSWA) of 1984 on the implementation of the RCRA program was the restriction on land disposal for hazardous wastes. The federal land disposal restrictions (LDR) at 40 CFR Part 268, which apply to all listed and characteristic wastes, prohibit land disposal of hazardous waste unless the wastes meet treatment standards that substantially diminish the toxicity of wastes or reduce the likelihood that hazardous constituents from wastes will migrate from the disposal site. The treatment standards may be either methods of treatment or concentration levels.

State

The state *Dangerous Waste Regulations* incorporate the federal land disposal restrictions (LDR) by reference. In addition to federal requirements for treatment (or meeting concentration levels), there are some state land disposal restrictions.

Federally regulated wastes must meet only federal LDRs, while state-only wastes must meet state land disposal restrictions. The state land disposal restrictions resulted from the 1986 Priority Waste Management Study. The purpose of the state LDR is to encourage best management practices for dangerous wastes according to, in order of priority, reduc-tion; recycling; physical, chemical, and biological treatment; incineration; stabilization; solidification treatment; and landfilling. Differences between the state and federal LDRs include:

1. The state definition of "Organic/carbonaceous waste" encompasses some federally regulated wastes that have defined treatment standards. However, some carbonaceous waste are state only and subject to state LDRs only. For example, the state requires incineration of carbonaceous state-only waste whereas the federal rules allow chemical or thermal treatment of federally designated carbonaceous waste.

2. Land disposal of EHW in Washington is prohibited.

Recycling Requirements

Dangerous wastes that are recycled are subject to generator, transporter, and storage facility requirements up to, and including, storage prior to recycling, except for specific materials/wastes listed in WAC 173-303-120(2) and (3) and 40 CFR 261.6(a)(2) and (3). Dangerous wastes that are recycled are known as "recyclable materials."

Major differences between WAC 173-303-120, Recycled, Reclaimed and Recovered Wastes, and the comparable federal subsection 40 CFR 261.6, Requirements for Recyclable Materials, are:

1. Ecology requires "exempt" recyclable materials to be subject to WAC 173-303-050 (clean-up authority), -145 (spills and discharges) and -960 (special powers and authorities), whereas 40 CFR has no similar requirements.

2. The *Dangerous Waste Regulations* contain "Recycling requirements for state-only wastes."

3. According to the state *Dangerous Waste Regulations,* recyclable materials are "considered stored unless they are moved into an active recycling process within twenty-four hours after being received" at WAC 173-303-120(4). The federal regulations state "...without storing them...". Recyclable materials are to enter the process immediately; no accumulation prior to storage is allowed.

For fertilizers derived from K061 waste, the state *Dangerous Waste Regulations* in WAC 173-303-505 give specific threshold levels for certain heavy metals. The comparable 40 CFR 266 Subpart C does not stipulate any similar prohibitions for fertilizers derived from K061 waste. Also, the state *Dangerous Waste Regulations* ask for additional criteria from registrants seeking to register waste derived or micronutrient fertilizers.

State

Ecology's Spill Rule is at WAC 173-303-145. Spills of dangerous waste or hazardous substances to the environment that are a threat to human health or the environment must be reported to local authorities in accordance with the local emergency plan as well as to the appropriate Ecology regional office. In addition, clean-up of the spill is required.

Federal

There is no directly comparable requirement under RCRA for spills; although the EPA Spill Table (CERCLA) lists reportable quantities for Hazardous Substances.

Federal Policy

EPA's contained-in policy states that environmental media, such as soils and groundwater, contaminated with a RCRA listed hazardous waste must be managed as if the media were hazardous waste until it no longer contains the hazardous waste or is delisted. Contaminated environmental media may be determined to no longer contain hazardous waste when the hazardous constituents for which the waste was listed fall below site specific, risk based levels and the media does not exhibit a characteristic. The contained-in policy is not a waiver from the requirement to designate material per the requirements of WAC 173-303-070.

All contained-in determinations must be based on statistically adequate site specific data and must, at a minimum, consider the concentration and risk of each constituent for which the hazardous waste was listed and any possible breakdown products. EPA has decided that contained-in determinations should be left to the discretion of the EPA region or authorized State and has not promulgated national guidance on the policy. EPA Region 10 implement the contained-in policy conservatively, using the 10^{-4} to 10^{-6} risk range established in draft Subpart S and, in some cases, contingent management strategies to ensure adequate environmental protection.

State Policy

The State policy is to establish risk based action levels using residential standards calculated under the Model Toxics Control Act. Contingent management (i.e., allowing an exemption under the contained-in policy provided the media is managed in a specific manner that further reduces risk to human health or the environment) will be considered when appropriate.

Federal

Federal regulations provide for permit by rule, whereby a person is deemed to have a RCRA permit if the conditions listed are met. Pursuant to 40 CFR 270.60, this includes the owner or operator of a publicly owned treatment works (POTW) that accepts for treatment hazardous waste, if the owner or operator has an NPDES permit, complies with the conditions of that permit, and complies with the following regulations:

- Identification number;
- Use of manifest system;
- Manifest discrepancies;
- Operating record;
- Biennial report;
- Unmanifested waste report; and
- Corrective action for solid waste management units (post November 8,1984 NPDES permits).

The waste must meet all Federal, State, and local pretreatment requirements applicable to the waste if it is to be discharged into the POTW through a sewer, pipe, or similar conveyance.

State

State regulations also provide for permit by rule, whereby a person is deemed to have a RCRA/DW permit if the conditions listed are met. The state rules provide several options including:

1. POTWs

Pursuant to WAC 173-303-802(4), the owner or operator of a POTW that accepts dangerous waste for treatment, is considered to have a permit by rule if the owner or operator has an NPDES permit, complies with the conditions of that permit, and complies with the following regulations:

- Notification and identification number;
- Generator requirements of WAC 173-303-170 through 173-303-230 when initiating shipments of dangerous waste;

- Performance standards;
- Manifest system;
- Operating record;
- Annual report;
- Unmanifested waste reports; and
- Corrective action for solid waste management units (post November 8, 1984 NPDES permits).

The waste must meet all federal, state, and local pretreatment requirements applicable to the waste if it is to be discharged into the POTW through a sewer, pipe, or similar conveyance. No EHW can be accepted for disposal at a POTW.

2. TETF, ENU, and WWTUs

Pursuant to WAC 173-303-802(5)(a), the owner or operator of a totally enclosed treatment facility (TETF) or an elementary neutralization unit (ENU) or wastewater treatment unit (WWTU) that treats dangerous wastes is considered to have a permit by rule, if the owner or operator has an NPDES permit, state waste discharge permit, pretreatment permit (or written discharge authorization from the local sewerage authority) or pretreatment permit (or written discharge authorization) from a local sewage utility delegated pretreatment program responsibilities pursuant to RCW 90.48.1651. The permit or authorization must cover the waste stream and constituents being discharged. The owner or operator must comply with the conditions of the permit, and with the following regulations:

- Notification and identification numbers;
- Designation of dangerous waste;
- Performance standards;
- General waste analysis;
- Security;
- Contingency plan and emergency procedures;
- Emergencies;
- Manifest system;
- Operating record; and
- Facility reporting.

Under the federal rules units meeting the definitions for TETF, or ENU, or WWTU do not require a permit.

Treatment, Storage, Disposal Facility (TSD) Permitting Issues

Areas Where the State Differs from Federal Requirements

State Requirements

EHW Management Standards - WAC 173-303-640 (5)(e)
Under final status permits, tanks containing EHW that is acutely or chronically toxic by inhalation must have appurtenances that prevent the escape of vapors, fumes, or other emissions into the air. The accumulation standards (WAC 173-303-200 (1)(b)) also reference this requirement. The federal rules contain air emissions requirements that are applicable to tanks, but do not specifically address inhalation risk.

Notice of Intent/Siting Criteria - WAC 173-303-281(3)
This section requires prior notice of the proponent's intent to obtain a permit to construct a new facility or to expand an existing facility. Along with this notice the proponent must submit a description of the project; a compliance history of the proponent; and for "significant expansions," a demonstration that the facility complies with the siting criteria. The federal rules contain none of these requirements in this form. The Washington State legislature mandated that Ecology develop siting criteria. There are some federal minimal siting standards for earthquake-prone areas and floodplains; additional siting standards for vulnerable hydrogeology were proposed in 1986 in compliance with the Hazardous and Solid Waste Amendments (HSWA).

Expanded Public Participation – WAC 173-303-281(4)
The state rule requires that the applicant’s meeting date must be coordinated with and approved by Ecology.

Contingent Groundwater Monitoring Plan -WAC 173-303-806 (4)(a)(xxi)
This section addresses potential releases from land based units. The proponent must prepare a plan whereby releases from the unit will be remediated. The inability of a proponent to demonstrate that the release can be remediated constitutes grounds for permit denial. While such a plan is not required under federal rules, EPA staff consider this in reviewing permit applications.

Treatment, Storage, Disposal Facility (TSD) Permitting Issues, (continued)

Post-Closure Alternative Permitting Process (HWIR Media Rule)
The state rules do not include the federal rules that establish an alternative administrative process for permitting facilities at which only dangerous remediation waste is treated, stored, or disposed. These types of facilities are currently cleaned up under the Model Toxics Control Act (Chapter 70.105D RCW) and, according to RCW 70.105D.090, people who conduct remedial actions under a consent decree, order or agreed order are exempt from the procedural permitting requirements. Therefore, these regulations are not needed in Washington State.

Post-Closure Rule
The state rule does not include the federal rule that allows for alternative mechanisms to be used in lieu of post-closure permits or amendments to the requirements for post-closure permit applications. Based on operating agreements with EPA Region 10, under which Ecology generally defers decisions about post-closure permitting at most post-closure facilities until after completion of cleanup under MTCA, much of the flexibility that would be provided by the regulations allowing for alternatives to permits has already been implemented. Given this agreement and the small number of facilities subject to post-closure care in Washington, Ecology did not adopt these regulations. Similarly, the regulations reducing the amount of information that must be submitted in a post-closure permit application are not necessary because regulations at WAC 173-303-840(b) and existing guidance on implementation of the federal hazardous waste program allow EPA and authorized states to determine that a post-closure permit is complete even if the application does not contain all of the elements that would be necessary in a permit application for an operating facility.

Ambient Monitoring Plan -WAC 173-303-806 (4)(a)(xxii)(A)
This section addresses quantifying potential releases from incinerators. The proponent must prepare a plan whereby they will measure baseline environmental information characterizing on-site and off-site conditions both prior to, and subsequent to, incinerator operation.

Environmental Review Procedures - WAC 173-303-806 (4)(a)(xxii)(B)
When Ecology adopted the siting criteria, a rule was written to allow for public review of facility (incinerators only) operation and

Treatment, Storage, Disposal Facility (TSD) Permitting Issues, (continued)

monitoring data. The proponent must coordinate this effort with the public and interested local organizations.

Impact Mitigation Plan -WAC 173-303-806 (4)(a)(xxii)(C)
When Ecology adopted the siting criteria, a rule was written to require a plan for mitigating all probable significant adverse impacts due to operation of the facility (incinerators only). The proponent must identify all of these impacts, plan to reduce the impacts, and have financial capability to implement mitigative measures, including financial compensation to the affected parties.

Citizen/Proponent Negotiation - WAC 173-303-902
The state requires the preempted facility operators to negotiate with local governments and citizens such additional measures that will ensure additional protection of human health and the environment. This is required only if the lead local government and citizens want it. Also, the local government and citizens may obtain other concessions and compensation from the proponent during the negotiations. Citizen/ Proponent Negotiation can also occur for other TSD facilities if both the local government in which the facility will be located and the owner/ operator want it. The federal rules have no such requirement for negotiations.

Performance Standards - WAC 173-303-283
The state's performance standards are worded slightly different from the Federal "omnibus" authority that was granted in HSWA. Although the state's performance standards are broader in scope than the omnibus authority, the omnibus authority has more precedence in use.

Interim Status Differences -WAC 173-303-400
There are minor changes to the dates when tank systems must meet the secondary containment requirements.

EHW Disposal Facility - WAC 173-303-700
EHW wastes can be disposed of in the state only at the facility at Hanford. Although the facility has never been constructed, the rules have not been altered to allow disposal of waste in a private landfill. The Environmental Protection Agency (EPA) has no such requirements for wastes to be directed to a specific facility.

Federal

HSWA corrective action requires facilities that have interim status, should have had interim status, or are seeking or required to have a final facility permit, to conduct corrective action to the extent necessary to protect human health and the environment from all releases of hazardous wastes or hazardous constituents from all solid waste management units (SWMU) at the facility. The definition of facility for the purpose of corrective action encompasses all contiguous property under the control of an owner/ operator seeking or required to have a permit.

EPA has determined that, in giving the statutory authority for HSWA corrective action in RCRA 3008(h) and 3004(u) and (v), Congress intended the agency to interpret the term hazardous waste in the most broad sense to include material that, although it does not meet the RCRA regulatory definition of hazardous wastes, contains hazardous constituents at levels that could pose a threat to human health or the environment.

State

Washington's corrective action program is implemented using Chapter 70.105D RCW, the Model Toxics Control Act, and its implementing regulations. One provision of Washington's corrective action program is considered to be broader in scope than the federal program. Specifically, dangerous waste management facilities are required to conduct corrective action as necessary to protect human health and the environment for all releases of dangerous waste and dangerous constituents at or from the facility, regardless of the source of the release.

Washington's program is not meant to increase clean up obligation, instead, it is meant to decrease duplication of effort and the potential for overlapping activities. All releases must already be addressed under MTCA. Also, EPA uses a combination of authorities be ensure all releases are addressed, regardless of source. Another difference between the state and federal program is that RCRA facilities are limited to the rights of appeal allowed under MTCA.

Federal

Federal closure performance standards require that RCRA regulated units be closed in a manner that minimizes risk to human health and the environment, including removal of all wastes and decontamination to risk-based health levels.

State

For final status facilities, the state regulations specify that the levels of dangerous waste or dangerous waste constituents or residues do not exceed- 1) for soils, ground water, surface water, and air- the numeric cleanup levels calculated using residential exposure assumptions according to the Model Toxics Control Act Regulations Chapter 173-340 WAC, or 2) for all structures, equipment, bases, liners, etc., clean closure standards set by Ecology on a case-by-case basis in a manner that minimizes or eliminates post-closure escape of dangerous waste constituents.

For interim status facilities, the state has adopted, by reference, the federal closure performance standards.

Regulation of Radionuclides

Federal

RCRA is explicit in excluding source, special nuclear, or byproduct material (as defined in the Atomic Energy Act of 1954) from its definition of solid waste (Section 1004(27)). This exclusion is codified in 40 CFR 261.4(a)(4). Thus, certain radionuclides cannot be regulated under RCRA. Additionally, Section 1006(a) states: "Nothing in this Act shall be construed to apply to (or to authorize any State, interstate, or local authority to regulate) any activity or substance which is subject to…the Atomic Energy Act...except to the extent that such application (or regulation) is not inconsistent with such Acts."

EPA has issued guidance on the regulation of radioactive and hazardous mixed wastes. The guidance makes it clear that mixed wastes are subject to RCRA only because of their hazardous components.

The Federal Facilities Compliance Act of 1992 added a definition of mixed waste to RCRA. It is defined as waste that contains both hazardous waste and source, special nuclear, or byproduct material. The addition puts RCRA's authority over mixed waste based on the hazardous component in statute. The addition also supports other amendments made under the act that require federal agencies to inventory and report their mixed wastes. The mixed waste definition does not allow for the regulation of the heretofore excluded radionuclides.

State

The Washington State Hazardous Waste Management Act, as amended in 1987, includes in its definition of hazardous waste, "...substances composed of radioactive and hazardous components." Source, special nuclear, and byproduct materials are not specifically excluded in the Washington law, however, RCW 70.105.111 states: "Nothing in this chapter diminishes the authority of the Department of Social and Health Services to regulate the radioactive portion of mixed wastes...".

Regulation of Radionuclides

Washington's *Dangerous Waste Regulations* do not exclude radionuclides in the listed exclusions (WAC 173-303-071). Indeed, radioactive waste is not mentioned anywhere in the regulation. Therefore, under the regulations, radioactive-only wastes could be designated a dangerous waste by virtue of the radioactivity. Radioactive wastes may fail the state toxicity test.
Three things are clear about Washington's authority to regulate radioactive waste as a dangerous or hazardous waste. First, mixed wastes can be regulated because of their hazardous component under both the federal and state laws. Second, RCRA specifically excludes any authority for the regulation of certain radioactive-only wastes. Third, radioactive waste could be designated as a dangerous waste under the *Dangerous Waste Regulations.*

While there may be a conflict with other state and federal laws, Chapters 70.105 and .109 RCW, and the *Dangerous Waste Regulations* give the state authority over radioactive-only wastes. Given the magnitude of the potential environmental impacts from uncontrolled radionuclide contamination, the regulatory flexibility afforded by this state-only difference is increasingly important at the Hanford Site where the U.S. Department of Energy is considered self-regulating for most radioactive waste.

Hazardous Waste and Toxics Reduction Program

Ecology has experienced compliance experts available to advise you on safe waste management and compliance questions. Use the regional phone numbers below to ask for a Hazardous Waste Specialist.

Central Regional Office (509) 575 2490

Counties: Benton, Chelan, Douglas, Kittitas, Klickitat, Okanogan and Yakima

Eastern Regional Office (509) 456 2926

Counties: Asotin, Garfield, Columbia, Walla Walla, Grant, Adams, Whitman, Spokane, Lincoln, Ferry, Franklin, Stevens, and Pend Oreille

Northwest Regional Office (425) 649-7000

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Southwest Regional Office (360) 407-6300

Counties: Skamania, Clark, Cowlitz, Wahkiakum, Pacific, Lewis, Pierce, Thurston, Mason, Grays Harbor, Jefferson and Clallam

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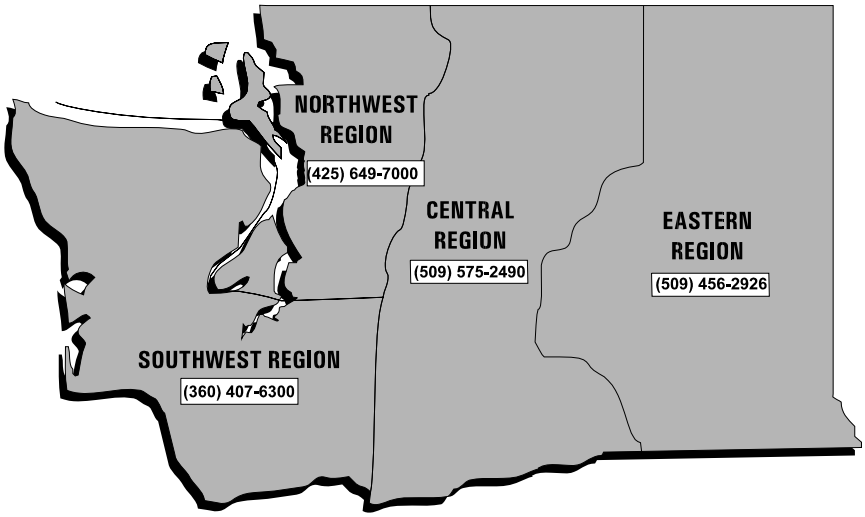
Ecology employs environmental experts who can help your with your waste reduction and compliance questions.

Toxics Reduction Specialists are available to advise you on pollution prevention techniques and issues. They can provide information over the telephone, or make educational (non-enforcement) visits your work site to provide free technical assistance on solvent substitution, economic considerations, pollution prevention opportunities, and suppliers.

Hazardous Waste Specialists can help you understand your regulatory requirements as a generator and offer sound advice on safe waste management.

Contact one of our experienced staff at the regional office nearest you.



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